REMARKS AND ARGUMENTS

Claims 1, 8 and 17 have been amended. No claims are cancelled. No claims are added.

Claims 1-6, 8-13, and 15-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Dennie (U.S. Patent No. 6,341,338).

Independent claims 1, 8 and 15:

Amended independent claim 1 includes the limitations of "...the memory buffer pointed to by a non-unique pointer associated with a first CPSM ... under control of a buffer manager software module (BMSW), transferring the non-unique pointer associated w/ the first CPSM from the first CPSM to associate with a second CPSM and thus transferring control of processing the data frame in the memory buffer from the first CPSM to the second CPSM; and accessing the at least some portion of the data frame in the memory buffer pointed to by the non-unique pointer associated with the second CPSM to process the data frame by the second CPSM." (Emphasis added).

Amended independent claim 8 includes the elements "... the memory buffer is pointed to by a non-unique pointer associated with a first CPSM; ... means for accessing the at least some portion of the data frame in the memory buffer point to by the non-unique pointer associated with the first CPSM to process the data frame by the first CPSM; means for transferring the pointer associated with the first CPSM, under control of a buffer manager software module, from the first CPSM to associate with a second CPSM and thus transferring control of processing the data frame in the memory buffer from the first CPSM to the second CPSM; and means for accessing the at least some portion of data frame in the memory buffer pointed to by the non-unique pointer associated with the second CPSM to process the data frame by the second CPSM." (Emphasis added).

Amended independent claim 21 includes the elements "...the memory buffer is pointed to by a non-unique pointer associated with a first CPSM; ... access the at least some portion of the data frame in the memory buffer point to by the non-unique pointer associated with the first CPSM to process the data frame by the first CPSM; transfer the pointer associated with the first CPSM from the first CPSM to associate with a second CPSM and thus transfer control of processing the data frame in the memory buffer from the first CPSM to the second CPSM; and access the at least some portion of data frame in the memory buffer pointed to by the non-unique pointer associated with the second CPSM to process the data frame by the second CPSM." (Emphasis added).

Dennie discloses methods, systems and articles of manufacture to coordinate distribution of shared memory to threads of control executing in a program by using a cooperative synchronization protocol. In particular, Dennie states that "The programmer also specifies a "block size," that is, the size of each partition of the total memory space to be allocated on an as-needed basis to the threads during execution." (Col. 3 lines 6-9) and that "each thread may have a unique identifier and all thread identifiers may be provided at the beginning of program execution. Memory blocks may be assigned to the threads using the identifiers." (Col. 3 lines 15-18). Further, Dennie explains that "all blocks are the same size, the indicator is simply updated by a fixed value based on the block size at the conclusion of each memory allocation cycle." (Col. 3 lines 26-29). In other words, Dennie describes a memory with partitioned blocks of equal size where each thread has a unique identifier and these identifiers can be assigned to memory blocks when the memory blocks becomes available.

On the contrary, Applicants disclosure does not contain any unique identifiers, nor does Applicants describe the assignment of memory blocks to threads. Rather, Applicants' disclosure describes the use of non-unique pointers in pointing different communication protocol software modules (CPSM) to the frame of data that is stored in a

memory buffer. Dennie's object is to allocate threads to empty buffers, while Applicants' object is to apply the same data contained in a memory buffer to be processed differently under the different control of different CPSMs. Further, Dennie defines threads to include "a sequence of instructions and data used by the instructions to carry out a particular program task" (Col. 1 lines 14-16), however, in Applicants' disclosure, data is contained in the buffer and the different CPSMs are pointed to the buffer so that the same set of data can be processed under the control of different CPSMs. Therefore, a thread is not the same as a CPSM.

The Office Action on page 5 cited Dennie Col. 3 lines 30-52 in support of rejection of Applicant's response to the previous Office Action (Dated Feb 23, 2006). The cited portion of Dennie teaches the use of "token" (Col. 3, line 39) for "memory allocation purposes" (Col.3, line 38). In other words, Dennie teaches the allocation of empty memory buffers when memory buffers become available through the use of "tokens". Applicants respectfully submit that Applicants' disclosure does not allocate empty memory buffers to threads. As stated in the claims, the memory buffer, containing at least a portion of a data frame, is pointed to by a non-unique pointer and this pointer though originally associated with a first CPSM, can be transferred to a second CPSM, under the control of a buffer manager software module (BMSM), so that the processing of the same portion of data frame in the memory initially processed by the first CPSM is now being processed under the control of the second CPSM. Therefore, Dennie discloses assigning empty buffers to threads using token(s), while Applicants disclose transferring control of data processing in a data buffer from one CPSM to a second CPSM. Consequently, Applicants respectfully submits that the limitations claimed by the Applicants are different from that of Dennie's.

The Office Action also cited Dennie Col. 1, line 65 to Col. 2, line 8 in support of rejection of Applicants' response to the previous Office Action (Dated Feb 23, 2006). The cited portion states a "mutual exclusion implementation in the operating system that

only permits one thread at a time to access shared memory. Shared memory is assigned to a thread by exchanging signals between threads, such that a thread can be forced to stop at a specified point during execution until it has received a specific signal." (Col. 1 line 65 to Col. 2 line 3). However, Applicants' disclosure describes the transfer of a non-unique pointer, under control of a BMSM, from a first CPSM to a second CPSM. Applicants do not teach or suggest "exchanging signals between threads". Applicants submit that threads are not the same as CPSM (as explained above), and "transfer" is clearly not the same as "exchange". Therefore, Applicants respectfully submit that the cited portion does not anticipate or teach the limitations as claimed.

Lastly, Dennie describes the use of a File allocation Table (FAT) to "assign a block of memory to a thread" (Col. 5, line 45). Applicants respectfully submit that a FAT is different from the Buffer Manager Software Module (BMSM) as claimed. The FAT as described assigns and matches empty blocks of memory to threads. In other words, when a thread receives assignment of an empty memory block, it is assigned a thread identification code and a memory location code. On the contrary, the BMSM transfers the non-unique pointer associated with a first CPSM to associate with a second CPSM so that the control in processing of the data contained in the buffer pointed to by the non-unique pointer is transferred from the first CPSM to the second CPSM. As such, Applicant respectfully submits that the FAT and the BMSM performs entirely different functions and cannot be equated to be the same.

In light of the arguments presented above, Applicants respectfully submit that Dennie fails to fully anticipate each and every element of Applicant's claims. Therefore, Applicants respectfully request the withdrawal of the claim rejections under 35 USC 102(e).

Dependent Claims 2-6, 9-13 and 16-20:

Claims 2-6, 9-13 and 16-20 depend from amended claims 1, 8 and 15. For at least this reason, Applicant submits that they are allowable over Dennie, and respectfully requests withdrawal of the claims.

CONCLUSION

Applicant respectfully submits that the rejections have been overcome by the remarks, and that the Claims are in condition for allowance. Accordingly, Applicant respectfully requests the rejections be withdrawn and the Claims be allowed.

Invitation for a telephone interview

The Examiner is invited to call the undersigned at 408-720-8300 if there remains any issue with allowance of this case.

Charge our Deposit Account

Please charge any shortage to our Deposit Account No. 02-2666.

Respectfully submitted,

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